1. (Presently Amended) A method for demultiplexing video images in a time-division multiplexed video stream, the video images produced by a plurality of cameras, the method comprising:

~~receiving at least a portion of the video stream composed of a plurality of video images in a processor;~~

parsing a first video image from the time-division multiplexed video stream;

~~parsing a second video image from the video stream;~~

determining ~~an amount of~~ mismatch values between the first ~~and second~~ video image and representative images for each camera;

if at least one ~~the~~ mismatch value is below a mismatch threshold, assigning the first ~~and second~~ video images ~~to a first channel~~ as the representative image for the camera having the lowest mismatch value;

if all of the mismatch values are above a discard threshold, automatically discarding the first video image.

2. (Presently Amended) The method according to claim 1, wherein the ~~first channel~~ representative images are stored in a ~~includes~~ a memory storage location ~~for storing video images~~.

3. (Presently Amended) The method according to claim 1, ~~wherein the first channel is associated with a first camera~~ further comprising:

if all of the mismatch values are above the mismatch threshold and at least one is below the discard threshold, providing a query for user input allowing the user to either assign the first video image as a representative video image for a camera or discard the first video image.

4. (Cancel)

5. (Cancel)

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10. (Cancel)

11. (Cancel)

12. (Original) The method according to claim 1, further comprising:
providing the number of cameras to the processor.

13. (Presently Amended) A method for demultiplexing ~~an~~ a time-division multiplexed image stream having a plurality of images, the method comprising:
comparing each new image within the image stream to a representative image associated with a camera to determine a mismatch value;
if each of the mismatch values are above a mismatch threshold and at least one mismatch value is below a discard threshold, querying a user to associate the new image as the representative image of a camera or to discard the new image ~~associating the new image with a new camera~~.

14. (Presently Amended) A method according to claim 13, wherein
if any of the mismatch values are below the mismatch threshold, selecting the lowest mismatch value and associating the new video image as the representative image for ~~with~~ the camera associated with the lowest mismatch value.

15. (Original) A method according to claim 14, wherein if the mismatch values are all above a discard level, discarding the new video image.

16. (Original) A method according to claim 14, wherein after a predetermined number of video images are assigned to a particular camera, the total number of cameras can be determined.

17. (Presently Amended) The method according to claim 1, wherein ~~channel assignment is~~ images from the video image stream are assigned as the representative image for a camera ~~performed~~ in real-time.

18. (Presently Amended) The method according to claim 1, wherein the ~~digital image stream is~~ images are parsed from the digital image stream and the parsed video images are assigned ~~to a channel~~ as a representative video image for a camera in real-time.

19. (Presently Amended) The method according to claim 1, wherein the first video image and the ~~second~~ representative video image are sub-sampled prior to comparison.

20. (Original) The method according to claim 1, wherein if the video image stream contains header information, discarding the header information.

21. (Presently Amended) The method according to claim 1, further comprising:
providing a user interface for setting the mismatch level; and
receiving user input of the mismatch level.

22. (Presently Amended) The method according to claim 1, further comprising:
providing a user interface for setting the discard level; and
receiving user input of the discard level.

23. (Presently Amended) The method according to claim 15, further comprising:
allowing a user to assign a video image as the representative image for ~~to~~ a camera even though the mismatch is above the discard error level.

24. (Original) The method according to claim 15, wherein a user may select video images to discard prior to comparison.

25. (Cancel)

26. (Presently Amended) The method according to claim 13, wherein a user may clear all reference images and ~~begin~~ restart the process of assigning a video image as the representative video image for ~~to~~ each camera.

27. (Presently Amended) The method according to claim ~~26~~ 13, further comprising:
automatically adjusting brightness within the reference video images and the new video image so that brightness levels are substantially similar prior to comparison.

28. (Original) The method according to claim 13, further comprising:
selecting a portion of the reference images to be used for comparison to a same portion of the new video image.

29. (Presently Amended) A computer program product on a tangible computer readable medium containing computer code thereon readable by a computer for demultiplexing video images in a time-division multiplexed video stream, the video images produced by a plurality of cameras, the computer code comprising:

computer code for sequentially receiving video images from the video stream ~~composed of a plurality of video images~~ in a processor;

computer code for parsing a first video image from the video stream;

~~computer code parsing a second video image from the video stream;~~

computer code for determining ~~an amount of~~ mismatch values between the first ~~and second~~ video image and a representative video image for each camera;

computer code for assigning the first ~~and second~~ video image~~s to a first channel~~ as the representative image for the camera having the lowest mismatch value if at least one ~~the~~ mismatch value is below a mismatch threshold;

computer code for automatically discarding the first video image if all of the mismatch values are above a discard threshold.

30. (Presently Amended) The computer program product according to claim 29, wherein in the computer code for assigning, the computer code assigns the ~~first and second~~ representative video images to a memory storage location.

31. (Presently Amended) The computer program product according to claim 29, ~~wherein the first channel is associated with a first camera~~ further comprising:

computer code for providing a query for user input allowing the user to either assign the first video image as a representative video image for a camera or discard the first video image if all of the mismatch values are above the mismatch threshold and at least one is below the discard threshold.

32. (Cancel)

33. (Cancel)

34. (Cancel)

35. (Cancel)

36. (Cancel)

37. (Cancel)

38. (Cancel)

39. (Cancel)

40. (Original) The computer program product according to claim 29, further comprising:

computer code providing a user interface for entering the number of cameras.

41. (Presently Amended) A computer program product on a tangible computer readable medium having computer code thereon for demultiplexing a time-

division multiplexed video ~~an~~ image stream having a plurality of images, the computer code for use with a computer, the computer code comprising:

computer code for comparing each new image within the image stream to a representative image associated with ~~a~~ each camera to determine ~~a~~ mismatch values;

computer code for querying a user to associate the new image as the representative image of a camera or to discard the new image ~~associating the new image with a new camera~~ if each of the mismatch values are above a mismatch threshold and at least one mismatch value is below a discard threshold.

42. (Presently Amended) A computer program product according to claim 41, wherein computer code for selecting the lowest mismatch value and associating the new video image as the representative image for ~~with~~ the camera associated with the lowest mismatch value if any of the mismatch values are below the mismatch threshold.

43. (Original) A computer program product according to claim 42, further comprising:

computer code for discarding the new video image if the mismatch values are all above a discard level.

44. (Original) A computer program product according to claim 42, computer code for determining the total number of cameras after a predetermined number of video images are assigned to a particular camera.

45. (Cancel)

46. (Presently Amended) The computer program product according to claim 29, wherein the computer program parses the digital image stream and the video images are ~~assigned to a channel~~ processed in real-time.

47. (Presently Amended) The computer program product according to claim 29, further comprising computer code for sub-sampling the first video image and the ~~second~~ representative video image ~~are~~ prior to comparison.

48. (Original) The computer program product according to claim 29, further comprising computer code for identifying header information associated with video images and discarding the header information.

49. (Original) The computer program product according to claim 29, further comprising:

computer code for providing a user interface for setting the mismatch level;

computer code for receiving user input of the mismatch level.

50. (Original) The computer program product according to claim 29, further comprising:

computer code for providing a user interface for setting the discard level;

computer code for receiving user input of the discard level.

51. (Presently Amended) The computer program product according to claim 43, further comprising:

computer code allowing a user to assign a video image to a camera as a reference image even though the mismatch is above the discard error level.

52. (Original) The computer program product according to claim 43, further comprising computer for allowing a user to select video images to discard prior to comparison.

53. (Cancel)

54. (Original) The computer program product according to claim 41, further comprising computer code allowing a user to clear all reference images and to begin the process of assigning a reference video image to each camera.

55. (Presently Amended) The computer program product according to claim 41 ~~54~~, further comprising:

computer code for automatically adjusting brightness within the reference video images and the new video image so that brightness levels are substantially similar prior to comparison.

56. (Original) The computer program product according to claim 41, further comprising:

computer code for selecting a portion of the reference images to be used for comparison to a same portion of the new video image.